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Social Integration and Confidence in the Police: A Cross-National Multi-Level Analysis

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Building on the insight of Durkheim, the current study examines the hypothesis that cross-national proxies for social integration explain variation in confidence in the police across different countries. Combining six sources of data from 84 nations with a total sample size of 122,330 respondents, the current research uses hierarchical generalized linear modelling (HGLM) logistic regression analyses to investigate the potential mechanism of social integration in shaping confidence in the police. Results show that three proxies of social integration (i.e., homicide rates, group grievance, and suicide rates) are negatively and significantly associated with confidence in the police. Additionally, results replicated the U-shaped convex curvilinear relationship between democracy and police confidence. Durkheim's notion of social integration can offer a theoretical framework to account for the effects of country-level variables on confidence in the police across cultural boundaries.

Keywords**:** confidence in the police; social integration; democracy; anomie

Introduction

Police represent a mechanism of formal social control; they can signify order and justice in conventional society, or illustrate tyranny in oppressive regimes. Understanding sources of confidence in law enforcement is critical because crime-control policies implemented by actors lacking public support are not as effective as those implemented by actors who have public support, and such implementations can be detrimental to the perceived legitimacy of legal authorities (e.g., Tyler and Huo, 2002, Jackson *et al.*, 2012, Trinkner and Tyler, 2016). Prior research has documented numerous reasons why people do not trust the police. While most research in this area has tended to focus on socio-demographic variables (see Brown and Benedict, 2002), there has been an emerging body of literature noting country-level correlates of confidence in the police (see Kääriäinen, 2007, Cao *et al.*, 2012, Worden and McLean, 2017, Boateng, 2018).

Three recent studies examining national levels of confidence in the police across the world are worth noting (see also Sung, 2006, Kääriäinen, 2007, Ivković, 2008, Jang *et al.*, 2010, Boateng and Buckner, 2019). In the first, Cao *et al.* (2012) used individual-level data from the 2005 World Values Survey (WVS) and macro-level data from other sources (e.g., United Nations Offices on Drugs and Crime or Freedom House) to examine the impact of democracy on confidence in the police. Most notably, their results from hierarchical linear modelling indicated that there is a U-shaped convex curvilinear relationship between levels of democracy and confidence in the police. In a second study, Morris (2015) also used data from the 2005 to 2008 WVS and country-level data from several institutions (e.g., Transparency International and Freedom House). Her analysis indicated that public confidence in the police is low when government corruption is high. Most recently, Boateng (2018) used the fifth round of the Afrobarometer Survey to examine the effects of individual-level variables (e.g., fear of crime and

victimization) and country-level variables (e.g., democracy and peacefulness) on perceptions of police legitimacy. His results showed that a country's level of peacefulness (i.e., a lack of violence or the fear of violence), as well as democracy, influence citizens' perceptions of police officers. Interestingly, his work also suggested that institutional corruption is not predictive of perceptions of police legitimacy.

Together, prior research has provided results that help evaluate the antecedents of confidence in the police. Notably, democracy, homicide rate and inequality of society (e.g., Gini index) have emerged as significant macro predictors of confidence in the police (see Ivković, 2008, Jang *et al.*, 2010, Cao *et al.*, 2012, Boateng, 2018). With that said, there exists a few noticeable gaps in comparative cross-national analysis. First, the available research is largely atheoretical. That is, to date, researchers in this area have failed to consider potential theoretical frameworks that may be useful in understanding country-level factors that predict variation in confidence in the police. Second, there has been little effort to compare public attitudes of police among persons living in developed countries with those of people living in less developed countries (for exceptions see, Akinlabi, 2017, Staubli, 2017, Roché and Oberwittler, 2018). As such, there has been a call by scholars for more cross-national comparisons of police-citizen relations (Roché and Oberwittler, 2018). Drawing on Durkheim's (1897/1952) insight in his seminal book, *Suicide*, the current study attempts to fill these gaps in the literature. Specifically, the current study seeks to assess whether and to what extent a country's social integration is related to public confidence in the police.

Specifically, individual-level data from a random sample of 122,330 residents from the European Value Survey (EVS) and the World Values Survey (WVS), and country-level data from 84 nations taken from six different sources, are used to examine the impact of a country's

social integration on an individual's confidence in the police. Four macro-level proxies for Durkheim's concept of social integration are used: the Gini coefficient, homicide rates, group grievance, and suicide rates. The study employs hierarchical linear modelling to isolate the impact of individual-level variables and country-level indices. In doing so, this study extends and contributes to the literature by offering a theoretical framework for understanding the impact of macro-level factors on an individual's perceptions of the police among people living in both industrialized and noninternalized countries. Consideration of how social integration relates to confidence in the police among citizens from various countries will help to inform the generalizability of this theoretical perspective across different cultural and political settings.

Social integration

Durkheim (1895/1982) posited that morality, and relatedly, criminality, are social constructs. He discussed two types of persons or phases that human beings go through—the social self and the primal self. Much like an animal, humans are born in the role of the primal self. The primal self is impulsive and limitless and does not adhere to the behavioral conventions of civilized society—it is egotistic. The social self refers to an "evolved" human who has behaviorally conformed to society's standards through a process of social integration. As part of the process of social integration, Durkheim discussed the importance of social facts in understanding individual behaviors. Defining social facts as "any way of acting, whether fixed, or not, capable of exerting over the individual an external constraint" or "general over the whole of a given society whilst having an existence of its own, independent of its individual manifestations" (p. 59), Durkheim wrote that individuals experience values, cultural norms, and social structures that transcend themselves. Quite literally, Durkheim believed that human behavior is shaped by the norms and values present at the societal level. Therefore, since the socialized community and

social ties influence an individual's daily life, it is not possible to understand human behaviors without first considering social facts—which typically can only be measured indirectly at the macro level.

Specifically, Durkheim (1895/1982) believed that through social interactions with other members of the community groups develop a *collective conscious*, or shared sense of morality. Thus, those who live within close proximity of each other (i.e., members of similar social classes), and those who engage in social functions with each other more frequently, are likely to share similar expectations about religion, government, and morality. Societies in which members share beliefs and are bound together in social networks are said to be characterized by high levels of social integration. According to Barkan (2014), social integration can be defined as "the degree to which a community or society is characterized by strong or weak social bonds" (p. 370).

Durkheim (1897/1952) argued that group levels of social integration and social regulation (e.g., the degree to which beliefs and actions of individuals are controlled by the norms and customs of society) can explain a variety of social phenomena including differences in homicide and suicide rates. For instance, he reasoned that Protestant areas in Europe tended to have higher suicide rates than Catholic-dominated areas because the Protestant doctrine is more accepting of such behaviors. Specifically, Catholics typically do not permit the deceased who committed suicide to be buried in their cemeteries. This is because they view suicide as the one sin that is unforgivable, and thus see the deceased as eternally dammed. Protestant's take a much looser interpretation of the Christian Bible and consider all sins equally. Thus, suicide rate is related to society's *collective conscious,* which is the product of social integration. Simply put, according to Durkheim, Protestant doctrine does not exhibit strong enough social controls to dissuade

suicide (e.g., lack of social integration and social regulation). It is noteworthy that Protestant-Catholic comparisons have been used as a proxy to measure the level of integration of the social groups in prior work (see also Stack, 2000a, Stack, 2000b).

Researchers have also applied Durkheim's ideas related to social integration and the collective conscious to various other social phenomena, including homicide rates (e.g., Messner, 1982), property crime rates (e.g., Crutchfield *et al.*, 1982), health issues (e.g., Berkman *et al.*, 2000), individual turnover (e.g., O'Reilly *et al.*, 1989), and financial decisions of market participants (e.g., Baker *et al.*, 2012) among many others. Some policing researchers have even used Durkheim's work to explain perceptions of the police (e.g., Sunshine and Tyler, 2003, Jackson and Sunshine, 2007). We will review these studies in more detail in the next section. For now, it is sufficient to summarize that social integration as a social fact is an important mechanism that has been shown to be associated with various social phenomena.

Social integration and confidence in the police

In Durkheim's view, the true function of police officers is not deterrence, crime-fighting, or apprehension, but rather the reinforcement of society's moral code. Police officers are one of the most visible representations of laws, which reflect, in some regard, a society's conception of morality. Thus, individuals living in societies that are more socially integrated will report greater confidence in the police because they perceive them as legitimate institutions of formal social control. As noted above, some policing researchers have attempted to incorporate Durkheim's insights into a framework for understanding public perceptions of the police. Instead of focusing on the role of social facts highlighted by Durkheim (1895/1982), this line of policing research has focused on whether residents' perceptions of the community are related to their perceptions of the police. The assumption of this approach is that people regard the police as symbolic

representations of community values and morals. Reflecting on the functionalistic perspective from Durkheim (1925/1961), this line of research illuminates that the role of the police is not just to prevent and control crime but also to reassure or reinforce moral values.

For instance, Jackson and Sunshine (2007) state that perceptions of the police can be explained from a Durkheimian perspective because, "crime is seen by a variety of publics to reveal the structure and edges of society, to demarcate the respectable from the disrespectable, to communicate the strength of social bonds, and the regulation of values, morals and norms" (p. 216). Using data from a community sample in England, Jackson and Sunshine (2007) work supported Durkheim's ideas by showing that a resident's sense of social cohesion was associated with confidence in the police and that perceptions of incivilities are another source of their evaluations of the police (see also Jackson and Bradford, 2009, Jackson *et al.*, 2009).

In another study, Sunshine and Tyler (2003), argued that police officers can be a visible representation of community values and morals. They posited that individuals support authorities, like police officers, only whenever they believe that they represent group values. Thus, they hypothesized that individuals would be more likely to cooperate with police officers if they felt that their purpose was to reinforce the norms of the larger community, and if they viewed them as legitimate moral agents of social control. To test this hypothesis, they used data from a sample of 586 residents in New York City and found that people are more likely to comply and cooperate with the police whenever they feel that the police defend and support community norms. Notably, individuals who identify with their community felt greater levels of solidarity to the police and believed that the police officers shared their values. Results indicated that the police were viewed as prototypical representatives of the community's moral values. Another important contribution of their study related to procedural justice was that perceived

fairness in police procedure was found to be an important antecedent of feelings related to greater moral solidarity with the police.

In sum, while there exists a growing body of literature documenting the utility of a Durkheimian perspective (e.g., Jang and Hwang, 2014, Sun *et al.*, 2014, Song *et al.*, 2015, Choi *et al.*, 2020) for explaining confidence in police, research has yet to assess the potential macro-level mechanisms through which social integration influence perceptions of the police. This is particularly concerning as Durkheim himself noted that all human behavior is a condition of societal level variables. Indeed, there are several reasons why it is likely that country-level variables related to social integration could influence an individual's confidence in the police. First, individuals from societies with low social integration may believe that the police do not share their values. Second, low social integration can develop cynical views of the police because the police cannot serve as a prototypical moral agent in society in which more individuals are in the primal self-phase as opposed to the social self-phase. That is, people in such societies do not have a sense of right and wrong, and they do not see the importance of following some moral code. Third, when social integration cannot act as a constraint of an individual's behavior, the police may be perceived merely as a mechanism of crime control of the state rather than an institution of moral authority. Essentially, they are viewed as less legitimate.

Current study

The current study examines whether country-level measures of social integration influence an individual's confidence in the police. Specifically, we assess the extent that economic inequality, homicide rates, group grievance, and suicide rates predict confidence in police while controlling for a host of individual-level characteristics. Adhering to Durkheim's belief that people may

view the police as representatives of moral values in society, we suspect that higher levels of inequality, homicide rates, group grievance, and suicide rates will erode confidence in the police, and these effects will be independent of individual-level characteristics. We investigate these questions using merged data from EVS and WVS, as well as multiple sources for country-level variables. Assessing the Durkheimian framework with macro-level measures is important not only because it is more aligned with Durkheim's original formulation of his hypotheses regarding social integration, but also because very little is known about how perceptions of the police are shaped by country-level (e.g., macro-level) differences. Further, little work has been done to assess police-citizen relationships in countries outside of the United States and United Kingdom. As such, there is a need for more cross-national comparisons of these phenomena to countries outside of the western world (Roché & Oberwittler, 2018). The current study attempts to provide this comparison.

Data and methods

Data

We use individual-level variables and country-level variables from six different sources. Four indices are used to mirror Durkheim's concept of social integration: the Gini-coefficient of income inequality, homicide rates, group grievance, and suicide rates. All country-level variables used were collected in 2012 or with data that was collected as close to the year 2012 and is available. First, data on the Gini coefficient of income inequality comes from the World Bank. Second, data regarding worldwide homicide rates are provided by the United Nations Office on Drugs and Crime (UNODC). Third, information on group grievance is obtained from the Fragile States Index surveyed by Fund for Peace (FFP). The Fragile States Index contains various indicators of state vulnerability. Group grievance is one of these measures, indicating political

and social conflicts between groups within a nation. Finally, data on the suicide rate for each nation were collected by the World Health Organization (WHO). As a control variable, the democracy index is taken from Freedom House to test the effect of the level of democracy on confidence in the police, as prior work has found this variable to be related to confidence in police (e.g., Cao *et al.*, 2012, Boateng, 2018, Boateng and Buckner, 2019).

The individual-level data come from the sixth wave of the WVS. The WVS includes measures of respondents' political beliefs and moral values, as well as demographic information. Starting in 1981, the WVS survey is designed to encourage comparative cross-national research on a wide range of issues. The English version of the questionnaire is translated into different languages and administered to approximately 1,000 to 3,000 adults from various countries around the globe. Participants in the survey are often selected using a random sampling method. Our study employs measures from the sixth wave of the WVS implemented in about 60 countries between 2010 to 2014. Unfortunately, the sixth wave of the WVS was not conducted in European countries. The EVS is conducted in European countries, and the WVS and EVS share the same questionnaires, allowing us to merge datasets. The current study uses the fourth wave of the EVS (2008-2010) to take advantage of the most recent data, which are more compatible with the WVS used. More than 30 European countries participated in the fourth wave of EVS.

Initially, there were 122,330 survey respondents in the 84 nations in the combined dataset from the WVS and EVS. However, about 20,000 respondents were dropped due to missing data at the individual level. It should be noted that many individuals dropped due to missing data were also from the countries that were excluded in our analysis. There was no available information on the Gini-coefficient for seven countries, such as Peru, Russia, and Turkey. Further, the group grievance index was not obtained from four countries, such as Taiwan and

Palestine. Also, data on suicide rate and democracy index could not be collected from 17 countries, including Algeria, Bosnia Herzegovina, and Iraq. As a result, a total of 25 countries were excluded from the analysis. Thus, the final dataset contained 90,889 individuals from 59 countries. It is important to note that multiple macro-level data could not be collected from a few countries, such as Palestine, explaining why there were 56 countries instead of 59 countries. For example, Palestine was missing data from Gini-coefficient and the group grievance index.

Measures

Dependent variable: Confidence in the police

Our dependent variable, confidence in the police, is measured at the individual level. Respondents were asked to respond on a 4-point Likert-type scale (1 = a great deal, 2 = quite a lot, 3 = not very much, 4 = not at all) to the following question: "How much confidence do you have in the police?' This item was coded into a dichotomized variable with 1 for those who expressed confidence in the police and 0 for those who did not. We transformed the ordinal variable into a dichotomous variable because this procedure could minimize the potential problems involving translation across different countries (Morris, 2015). Other researchers have measured confidence in the police in a similar way when using the WVS (e.g., Jang *et al.*, 2010, Cao *et al.*, 2012) and demonstrated that this measure is both reliable and exhibits high construct validity.

Country-level variables

We consider four country-level variables to assess the effect of social integration on confidence in the police. At the outset, we attempted to retrieve data that were collected in 2012 to match them to the date of individual-level data. This study used the Gini-coefficient to measure an economic aspect of social integration, showing the levels of inequality and

distribution of wealth in one's society. The Gini-coefficient ranges from 0 to 1. The Gini-coefficient used in the analysis comes from the World Bank. The World Bank offers the index multiplied original values of the Gini index by 100, so that the value of 0 means 'total equality', whereas the value of 100 means ' total inequality'. We believe that the Gini-coefficient is a good proxy measure for social integration. Durkheim (1895/1982) argued that the collective conscious of a group (e.g., solidarity and shared morality) is formed through social interactions. Durkheim believed that groups of people who lived near one another, worked together, and interact in various close-knit social situations develop a collective consensus about social phenomena, such as expectations related to family, religion, government, and morality. Following this line of reasoning, societal-level economic inequality should influence levels of social integration by limiting opportunities for members of the public to interact with each other and develop collective consciousness. Typically, people live near, work with, and socialize with members of their own social class. Social class impacts one's experiences with daily life (McLeod, 2013). Consequently, members of similar social classes have been found to have similar outlooks on social phenomena, such as perceptions of the criminal justice system (Hagan and Albonetti, 1982). As wealth is one indicator of social class, we would expect then that persons living in countries with tremendous levels of economic inequality would not be as socially integrated as persons living in countries with a more equal distribution of wealth. Thus, the Gini-coefficient seems to provide one reasonable proxy measure for levels of social integration.

Similarly, the homicide rate per 100,000 people was also considered in the model. The homicide rate is a reliable indicator often used to measure societal-level frustration or anger (see Henry and Short, 1954, Unnithan *et al.*, 1994). People may resort to violence toward others because they believe that others should be blamed for their failures and subsequent frustration

(Batton and Ogle, 2003). Durkheim referred to this as "anomie." According to Durkheim, anomie (e.g, normlessness) is a product of less socially integrated societies, characterized by conflicting belief systems and a lack of effective social bonds between groups of individuals and the larger community. Countries that experience anomie often experience high levels of homicide (Schaible and Altheimer, 2016). Thus, homicide rate also provides a reasonable proxy measure of social integration. The information on homicide came from the UNODC. The measure included in multivariate models was the log of homicide rates to correct for a positive skewness of the distribution.

We used the Peace Fund's FSI for our measure of group grievance. The FSI was developed to measure the degree of unstableness of a country's politics, economy, and society. The group grievance index reflects social unstableness, capturing the ethnic tensions and the conflicts between the dominant majority and oppressed minorities. Group grievance may indicate levels of social integration of society by focusing on historical or current injustice between groups in society, and thus a lack of collective consciousness between groups of individuals (Durkheim, 1895/1982). The group grievance index is measured using a 10-point scale, with higher numbers indicative of greater levels of group conflict. The country-level variable of social integration used was related to the suicide rate. As noted in Durkheim's (1897/1952) seminal work, much like homicide rate, the suicide rate may reflect individuals' frustration and anger produced by a society that fails to effectively integrate members of the public. For this project, the suicide rate per 100,000 people was also used to assess levels of social integration. This variable was derived from the WHO.

Another macro measure considered in the study that was drawn from the larger literature base was related to a country's level of democracy (e.g., Sung, 2006, Cao *et al.*, 2012, Boateng,

2018, Boateng and Buckner, 2019). Prior research has shown that the level of democracy in a country is associated with the level of confidence in the police that country. This may be because police offer the most visible representation of government within a society (Hsieh and Boateng, 2015). In countries with established democracies the lay person has a more active voice in society in that their voting decisions impact governmental functioning and directly affect how they are governed. That is, there is more consensus in decision making. In many nondemocratic societies the public's voice is often ignored, and members of the public are ruled by governmental force. As such, police may be viewed more favorably in democratic societies because they are seen as legitimate moral agents (Boateng, 2018). Conversely, police may not be viewed as favorably in countries that do not have established democracies because they are associated as being an illegitimate, repressive, agent of the state (Karstedt and Farrall, 2006, Hsieh and Boateng, 2015).

Countries that have established democracies may also exhibit higher levels of social integration as laws and government procedures reflect consensus in society (Goldthorpe, 1974) and not the interests of a repressive tyranny. As such, level of democracy is a reasonable proxy measure for social integration and has been used to assess police legitimacy in prior studies (see Boateng and Buckner, 2019, Cae et al., 2012; Sung, 2006; Verba and Almond, 1963). For instance, using the sixth wave of the World Value Survey and the 2016 Democracy Index, Boateng and Buckner (2019) showed that level of democracy is predictive of police legitimacy. However, Cao *et al.* (2012) revealed that the level of democracy has a convex curvilinear effect on an individual's confidence in police (see also Verba and Almond, 1963, Sung, 2006). Based on these findings, we also examine the convex curvilinear effect of democracy on the level of confidence in the police. Following Cao et al.'s operationalization of democracy, we also used

the information on political rights and civil liberties in different countries from Freedom House. This measure was reported on a seven-point scale with higher values representing a higher degree of democracy.

Individual-level variables

To isolate the direct macro-level effect of social integration on confidence in the police, several individual-level variables were controlled for in the model (see Brown and Benedict, 2002). Demographic variables have been shown to be relevant correlates of confidence in the police (e.g., Ivković, 2008, Cao *et al.*, 2012, Morris, 2015, Boateng, 2018). As such, the analyses controlled for gender (0 = male, 1 = female), age, education attainment, marital status (0 = single, 1 = married), and employment. Age is a continuous variable reflecting years. Educational attainment was measured with eight orderly categories ranging from 'uncompleted elementary education' to 'university with degrees or higher.' Marital status was assessed using a dummy variable coded 1 (married) and 0 (not married). Employment condition was recoded into two dummy variables: employed vs. unemployed, and no-working status (retried/housewife/student = 1) vs. unemployed. Additionally, an anomie index was also included in the model. Respondents were asked to indicate whether they thought the following four behaviors could be justified: claiming government benefits which you are not entitled to, avoiding a fare on public transport', cheating on taxes if you have a chance, and someone accepting a bribe in the course of their duty. Responses followed a 10-point Likert-type scale. The mean score of these responses was computed to create the anomie index to indicate that a higher score represents a higher level of acceptance of the anomie. The internal reliability of this measure was good ($\alpha = .724$). Table 1 presents descriptive statistics of the variables used in this study

[Table 1 about here]

Analytical plan

The analytical strategy proceeded in two steps. First, we ran an unconditional model with random effects. This is a model without any predictors at either the individual or macro levels designed to assess whether there is significant variation in confidence in the police at the country level (Raudenbush and Bryk, 2002). Second, we employed HGLM to address the issues involving the independence of error terms and homoscedasticity. Since the dependent variable, confidence in the police is a binary variable, the current study uses the Bernoulli function with a logit link in HLM. Specifically, we examined four models. The first random intercept model involves the effects of individual-level variables on confidence in the police, and the second model (i.e., the intercept as outcome model) includes the democracy variables in the model to replicate the findings from previous research. The third model tests the social integration model only, and the final model introduces all variables to the multilevel analysis.

Findings

Table 2 shows the percentage of the national population that exhibited confidence in the police country-by-country. Broadly speaking, there were more people who expressed confidence in their police than those who were not. About 80 to 90 percent of citizens living in more democratically advanced countries, such as Australia, Denmark, and Finland, expressed confidence in the police. On the other hand, 70 percent of citizens living in less progressive countries (i.e., Pakistan, Ukraine, and Mexico) reported that they do not trust the police. Our descriptive statistics revealed that citizens in different countries reported different levels of confidence in the police.

[Table 2 near here]

Table 3 presents results from the unconditional model without any predictors at either level. Our results demonstrated that there was significant variance regarding confidence in the police at the country level, indicating that confidence in the police varied significantly across countries (variance component = .705 $p < .001$) and that it was not constant. Thus, the unconditional model showed that it was appropriate to proceed with the multilevel analysis.

[Table 3 near here]

Table 4 displays the results for the HGLM conditional model with a logit link function, predicting confidence in the police. The first model predicts confidence in the police using individual-level variables only. As is common with data from large samples such as this, all of the individual-level variables assessed statistically significantly predicted confidence in the police. However, as noted in the findings, the noted effect sizes were quite modest. Specifically, results show that females were 1.1 times more likely to be confident about the police compared to males ($p < .001$). Older respondents were 1.003 times more likely to express confidence in the police than younger respondents ($p < .001$). Further, married individuals were 1.150 times more likely to express confidence in police than non-married persons. Similarly, the employed (OR = 1.175), and individuals who had no-working (OR =1.309) status were more likely to report confidence in the police than their counterparts ($p < .001$). Both educational attainment (OR = 0.989) and the anomie index (OR = 0.915) were negatively and significantly associated with confidence in the police ($p < .001$). Specifically, a one unit increase in anomie was found to reduce the odds of expressing confidence in the police by a factor of 1.09.

In the following models, the country-level variables were entered as a next step. Model 2 is a democracy model introducing both the democracy index and the quadratic term of the measure of democracy. Since there exists a growing empirical literature documenting the link

between democracy and confidence in the police (e.g., Cao *et al.*, 2012, Boateng, 2018, Boateng and Buckner, 2019), we replicate this connection with a new dataset by merging the WVS with the EVS. The remaining country-level variance in random effects is .514 after including an index of democracy and its quadratic term, indicating that Model 2 explains approximately 27 percent of the country-level variance in confidence in the police. With that said, there is still significant variance in confidence in the police to be explained with country-level variables ($X^2 = 7002.8$, $p < .001$). Our results in Model 2 show that democracy has a curve linear effect on confidence in police across nations by presenting the positive sign of the regression coefficient of the squared term of the democracy index. This result is consistent with the results from the works by Cao *et al.* (2012) and Sung (2006). Simply put, results show that the odds of individuals exhibiting confidence in the police are higher in the countries with high levels of democracy and countries with authoritarian regimes, but the odds are lower in countries that are in transition from authoritarian government to advanced democracy ($p < .001$).

Model 3 contains only the measures of social integration and individual-level variables. We considered four country-level variables as indicators of social integration. The country-level variance of random effects is .452 after taking into account the variables of social integration, suggesting that the model explains about 36 percent of the country-level variance in confidence in the police across nations. All but one country-level variables involving social integration are significantly predictive of confidence in the police. While the Gini coefficient of income inequality does not predict confidence in the police in this model, the other three measures are significantly associated with confidence in the police across nations. Specifically, one unit increase in homicide rates predicts a 26 percent decrease in the odds of having confidence in the police ($p < .01$). Also, higher group grievance tends to reduce the odds that the respondent

exhibits confidence in the police ($p < .001$). Similarly, higher suicide rates are significantly and negatively associated with confidence in the police ($p < .05$). These findings suggest that country-level social integration is important predictor of an individual's confidence in the police.

Finally, Model 4 is a full model that includes all the variables used in our analyses. Results show that all independent variables at both the individual level and country level maintain their effects from Model 3, even after controlling for measures of democracy. The residual country-level variance of random effects is .351. The full model explained approximately 40 percent of the country-level variance in confidence in the police.

[Table 4 near here]

Discussion

Confidence in the police is a topic of great interest to policymakers because the effectiveness of the police is largely dependent on citizens' compliance and cooperation with officers of the law (see Mazerolle *et al.*, 2013, Tyler *et al.*, 2015). A recent report published by the President's Task Force on 21st Century Policing (2015) listed several ways for police administrators to improve perceptions of the police among citizens. We believe that while it is important to consider what police officers can do to increase perceptions of legitimacy and confidence, it is also important to recognize that there are predictors of confidence in policing that go beyond what police officers can do. Specifically, there is a growing body of the literature showing that macro-level characteristics of a society (i.e., level of democracy) influence perceptions of police (e.g., Kääriäinen, 2007, Ivković, 2008, Jang *et al.*, 2010, Cao *et al.*, 2012, Morris, 2015, Boateng, 2018, Boateng and Buckner, 2019). Nonetheless, to date, much of this line of research had been atheoretical and focused on Western cultures. Contributing to this small body of scholarship, we empirically assessed whether Durkheim's (1897/1952) notion of social integration could serve as

a useful theoretical framework in our understanding of confidence in the police across a variety of cultures. Results from our analysis were generally supportive of Durkheim's hypotheses.

Based on Durkheim's (1895/1982) observation that macro-level social facts may better explain an individual's perceptions and behavioral patterns, we examined the effects of four country-level proxies of social integration on confidence in the police—Gini-coefficient of income inequality, homicide rates, suicide rates, and group grievance—while also controlling for individual-level correlates. As noted above, each proxy mirrors a different aspect of Durkheim's concept of social integration within a country. To do this, we drew on various data sources to examine the role of social integration in shaping confidence in the police. Specifically, we merged the WVS and EVS to measure individual correlates of confidence in the police, and we derived country-level variables from reliable institutions (e.g., WHO or Freedom House) that previous researchers have used to investigate this line of inquiry. As a result, we created a dataset comprised of a sample of 90,889 respondents from 59 nations. HGLM was used to test whether variance in confidence in the police is explained not only by individual variables but also by country-level variables. Our research yielded three key findings.

First, our unconditional model with random effects showed that there is significant variation in confidence in the police at the country level. This suggests that while much research has sought to identify individual factors associated with confidence in the police (see Brown and Benedict, 2002, Tyler and Huo, 2002), it might be critical to consider macro-level variables to better understand confidence in the police. It should be noted that the findings involving individual factors are largely in line with the extant literature (e.g., Ivković, 2008, Jang *et al.*, 2010, Cao *et al.*, 2012, Boateng and Buckner, 2019). Females, older people, the married, the employed, and individuals with no working status (e.g., retired) tend to trust the police. Further,

those with higher acceptance or tolerance for anomie are more likely to exhibit confidence in the police. Despite the significant effects of individual-level variables, the results indicated that there is a significant variation in confidence in the police that can be accounted for by country-level variables.

Second, our HGLM logistic regression analyses revealed that proxies of social integration are important predictors of confidence in the police. Specifically, those who are living in a country with high levels of homicide are less likely to have confidence in the police. The levels of confidence in the police are also lower for those who are living in countries with higher rates of suicide. High levels of group grievance also erode confidence in the police. Durkheim (1925/1961) stated that the reason why we punish offenders does not simply lie in deterrence. He argued that another important function of punishment is to recognize and reaffirm society′s moral values by distinguishing deviances from norms. Building on this discussion, some researchers have proposed that people would have positive sentiments toward the police when they believe that legal authorities symbolize the values of the group (see Sunshine and Tyler, 2003, Jackson and Sunshine, 2007). According to this logic, it is also possible that individuals who perceive low levels of social integration may not view the police as prototypical moral agents of society. In other words, the level of social integration of a group can be expressed in an individual′s confidence in the police. Although most works from this approach have been centered on individual variables, the current study provides support for the macro-level Durkheimian approach. Taken together, three of the four social integration proxies that we examined were related to confidence in the police suggesting that the Durkhemian framework may offer one potentially useful mechanism that future comparative research could consider.

This theoretical lens could help unpack the relationship between social integration and confidence in the police.

Finally, our study confirmed previous findings with respect to the link between democracy and confidence in the police by showing that the levels of confidence in the police are higher for those who live in countries with authoritarian governments and advanced democracies, while those who are living in countries in democratic transition are less likely to be confident in their police. Cao *et al.* (2012) argued that residents in authoritarian states may have high levels of confidence in the police because they are subject to, "mass media filtering of negative news about the police" (p. 47). This propaganda can lead to the development of "collective orientation cultures" in authoritarian nations (p. 47). On the other hand, residents in countries experiencing transformation into democracy may recognize more problems regarding how the police operate and thus place less confidence because they do not view them as a moral agent, but rather a tool used by the government to suppress political opponents.

The findings of our study complement recent comparative research examining the effects of country-level factors on confidence in the police by showing that several macro-level proxies for social integration can influence confidence in the police (see Kääriäinen, 2007, Cao *et al.*, 2012, Worden and McLean, 2017, Boateng, 2018). Notably, our results are from a large sample of residents across 59 countries with very distinctive cultural differences, which provides strong external validity for the current findings. Other researchers have noted that the degree of social integration in many cultures is deteriorating and that available social capital in society is declining (Putnam, 2000, Putnam, 2015, Lukianoff and Haidt, 2018). As such, these results point to the need for societal-level policy changes to increase integration. While our findings certainly suggest improving citizens' social integration into society could help improve perceptions of

police, doing so would entail massive undertakings. The political climate in many of the countries in our sample is resistant to promoting social integration, and as such, there likely is very little clear direction for accomplishing this goal. Thus, the strength of this study is found in its theoretical contributions. Specifically, our work shows that Durkheim's ideas related to social integration at the societal level can used to explain an individual's confidence in police. A lack of social integration may lead to a weak collective conscious, and possibly anomie, which seems to impact confidence in police. Future research should explore the causal process of these findings a bit more thoroughly.

Limitations

Our study is limited in a few respects. First, while we have drawn data from 59 countries, the countries were used in our analysis were not randomly chosen. We did compare differences in individual-level measures between citizens from the countries included in our study and those from the countries that we had to drop due to missing data. Our results indicated that the proportion of individuals exhibiting positive perceptions of the police was larger among those from the countries included in our study than those from the individuals in the countries we had to exclude. Further, the results from our independent samples *t*-tests revealed that citizens who were from the countries included in our study tended to be older than their counterparts. Additionally, the average level of educational attainment was higher among those from countries with all macro-level data than among those from countries lacking macro-level data. Moreover, reported levels of anomie index were also significantly higher among individuals from countries included in our analysis as opposed to those from excluded countries.Thus, we suggest that failure to include the missing data may have caused our models to underestimate the impact of social integration on individual perceptions of the police. That is, it is possible that citizens from

excluded countries reported higher levels of anomie index due to social disintegration in their society, which could result in lowered confidence in the police. If these countries were included with macro-level data, it might have increased the effect size of social integration on confidence in the police. Nonetheless, it remains uncertain how the exclusion of the missing data countries would have influenced our patterns of findings. Future research should attempt to replicate these findings in models with complete data from respondents in more countries around the globe.

Second, the pattern of missing values of our individual-level data was not random. We initially considered conducting multiple imputations. However, the results from Little's Missing Completely at Random (MCAR) test indicated that the significance value was less than .05 in our sample, suggesting that our individual-level data were not missing completely at random. Thus, it was not desirable to impute the values of missing cases and include them in the analysis. The exclusion of individuals with missing data could have affected our findings, limiting the generalizability of our findings. As such, studies should be conducted with more complete data to explore the relationship between social integration and confidence in the police.

Third, we used a single item to measure the dependent variable, confidence in the police. Although much research has employed the same measurement of confidence in the police (e.g., Jang *et al.*, 2010, Cao *et al.*, 2012, Boateng and Buckner, 2019), any measure based on a single item is not free from measurement errors. Future comparative researchers who strive to examine confidence in the police should consider using the measure of confidence in the police with multiple items that can ensure strong construct validity. Fourth, given that we relied on data that are not longitudinally based, our study faces a temporal ordering issue. Additional research should replicate our findings with longitudinal data that can alleviate temporal ordering constraints to clarify the relationship between social integration and confidence in the police.

It is worth noting that the shortcomings of the data do not necessarily invalidate our findings. Despite missing data on some countries, as noted above, the macro-level findings are largely consistent with Durkheim's (1895/1982) notion of social integration. Additionally, the individual-level findings are largely in line with past studies, despite the missing data on those predictors (e.g., Jang *et al.*, 2010, Cao *et al.*, 2012, Boateng and Buckner, 2019). Thus, we are confident that our findings are robust.

Conclusion

We close with this observation from the current study—social integration at the societal-level influences individual-level confidence in the police. Our findings suggest that residents in different countries have different levels of confidence in the police, independent of individual characteristics. Assessing the impact of macro-level characteristics on levels of confidence in police across nations is important not only theoretically but practically because it helps us to recognize the importance of how structural, societal-level changes can influence perceptions of the police. The success of crime control policies can be dependent on public confidence in the police. If members of the general public do not trust police officers, they will be less likely to cooperate with them. Our work shows that Durkheim's ideas related to social integration can provide a reasonably concise theoretical explanation for confidence in police across cultural boundaries, and consideration of this model should be made in future tests of police confidence.

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